

## EE 154 Laboratory 3

### Question:

Write a C program to

- 1) print first 10 fibonacci numbers.
- 2) print fibonacci numbers until 100.

Hint: Fibonacci numbers = 1 , 1, 2, 3, 5, 8, 13, ...

$$F_1 = 1, F_2 = 1, F_n = F_{n-1} + F_{n-2}$$

```
1 1 2 3 5 8 13 21 34 55
1 1 2 3 5 8 13 21 34 55 89
```

```
#include "stdio.h"
int main() {
    // fibonacci: 1 , 1, 2, 3, 5, 8, 13, ...
    // 1) print first 10 fibo numbers.
    // 2) print fibo numbers until 100.

    // 1
    int a,b,c,i ;
    a=1;
    b=1;
    printf("%d ", a);
    printf("%d ", b);
    for(i=0 ; i<(10-2) ; i++ ) {
        c = a+b ;
        printf("%d ", c);
        a=b;
        b=c;
    }
    printf("\n");

    // 2
    a=b=1;
    printf("%d ", a);
    printf("%d ", b);
    c = a+b ;
    while(c<100) {
        printf("%d ", c);
        a=b;
        b=c;
        c = a+b ;
    }
    getchar();
    return 0;
}
```